Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Class: \_\_\_\_\_\_\_\_\_\_Date: \_\_\_/\_\_\_/\_\_\_

**The Nature of Matter**

**Terminology and Concepts Activity**

1. Fill in the blanks with the proper word (spelled correctly).
   1. When substances are together but not joined chemically, the result is called a

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* 1. The lightest of the three elementary particles is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
  2. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the smallest unit of matter.
  3. The elementary atomic particle having no charge is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
  4. Anything that occupies space is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
  5. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ has a positive charge and is in the nucleus of an atom.
  6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is matter that is composed of identical atoms.
  7. Atoms of different elements, when joined together chemically, are called

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* 1. The basic unit of a compound is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. Are free electrons found in the “inner” or “outer” orbits of an atom?
2. Describe “random drift” of electrons in an element.
3. Which one of the following statements is a true statement about the nature of matter?

**A** Two electrons that are close to each other willattracteach other.

**B** Two neutrons that are close to each other willattracteach other.

**C** Two neutrons that are close to each other willrepeleach other.

**D** Two protons close to each other willrepeleach other.

1. **Which of the following statements is a false statement about the nature of matter?**

**A** Two electrons that are close to each other willrepeleach other.

**B** Two neutrons that are close to each other willdo nothingto each other.

**C** Two neutrons that are close to each other willattracteach other.

**D** A proton and an electron close to each other willattracteach other.

1. **Label the parts of the atom in the diagram below.**

